

shp Jan 16

Work Order ID 78091

78091

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December-28-11 3:31:32 PM

Item ID: D3828-2KGY

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Vertical Tunnel Lower, RH

Start Date: 28/12/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 16/01/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: M.L.J

Date: 11/12/28 Tooling:

Date:

Run Start *NR1*

QC:

Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3828

A

100

0.00

100

HandThermo

Memo

0.00

Hand Finishing Thermoforming

1-Cut Sheet to required Blank size

DL
12/01/09

105

0.00

105

Dry Material

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 KYDEX

Temp: 150°F

Time IN: 7:00 pm 12/01/08

Time OUT: 5:00 am 12/01/09

DL
12/01/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

78091

Page 2

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 28/12/2011 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 16/01/2012 **Req'd Qty:** 1.00 *** 1 ***

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Reference:

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

0.00

110

0.00

Thermoform

Thermoforming Machine

Memo

1-Machine Set-Up
2-Pre-heat Tool to required temp.
3-Thermoform as per Dwg and Folio #FTA053 using tool DT229
Dwg Rev: A
Folio Rev: C

0.00

120

0.00

QC

Quality Control

Memo

Visually inspect part for proper formation and texture

0.00

130

0.00

QC

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

December-28-11 3:31:32 PM

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Page 3

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 28/12/2011 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 16/01/2012 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

0.00

140

0.00

HandThermo

Memo

Hand Finishing Thermoforming

1-Trim to finished dimensions as per Dwg

150

QC2- Inspect parts off machine FAI/FAIB

0.00

150

0.00

QC

Memo

Quality Control

Complete FAI document

160

QC5- Inspect part completeness to step on W/O

0.00

160

0.00

QC

Memo

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

Work Order ID 78091***78091***

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December-28-11 3:31:32 PM

Item ID: D3828-2KGY

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Vertical Tunnel Lower, RH

Start Date: 28/12/2011 Start Qty: 1.00

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Cust Item ID:

Required Date: 16/01/2012 Req'd Qty: 1.00

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	Identify as per dwg & Stock Location: _____	0.00							
170									
Packaging	Memo	0.00							
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

12/1/10

12/1/16
mt
12-01-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

December-28-11 3:31:35 PM

Page 1

Work Order ID: 78091

78091

Parent Item: D3828-2KGY

D3828-2KGY

Parent Item Name: Vertical Tunnel Lower, RH

Start Date: 28/12/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP RevA: New issue DD verified by:EC
Add Step 105 Dry Material 10/04/21 DL

Ipp Rev. B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MKYD6185S.080-P3-52068		Purchased	No			100	sf	1,011.893	2.7083	2.7083			

MKYD6185S 080-P3-52068

Kydex steel grey

**

Location

therm

111807

119476

Loc Qty

1011.893107

10.4896282

1001.40348

Loc Code

2.7083 sq ft

Wh
12/01/12

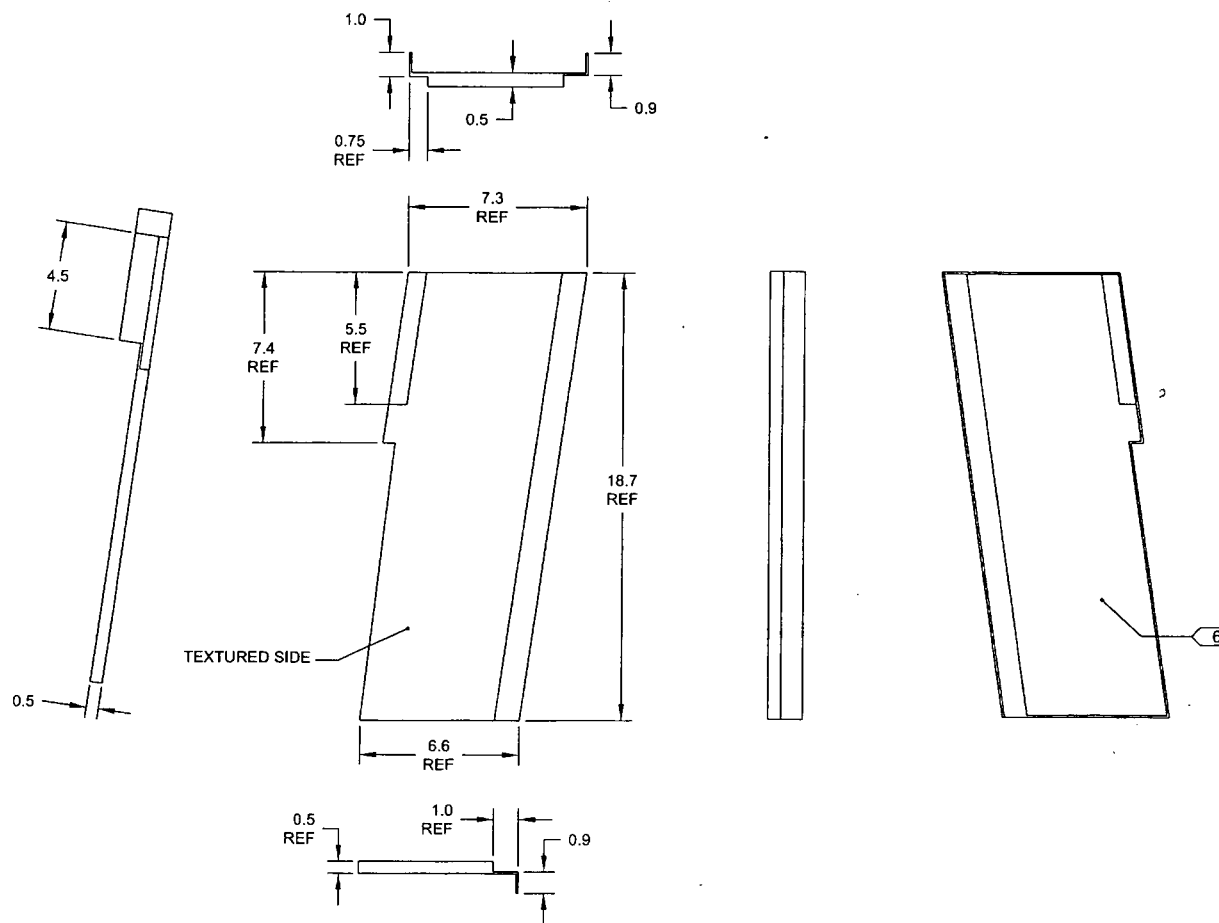
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



UNCONTROLLED
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 78091 M.C.J
11/12/28

RELEASED
09/06/12

D3828-1 VERTICAL TUNNEL, LOWER L/H

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 0.6 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9228 PER DART QSI 022. TRIM PER MOLD.
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED

PART NUMBER	DESCRIPTION
D3828-1KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3828-1KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

REV.	NEW ISSUE	DESCRIPTION	PH	09.06.12
DESIGN			BY	DATE
DRAWN				
CHECKED				
MFG. APPR.				
APPROVED				
DE APPR.				
DATE	09.06.12			

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3828 REV. A
SHEET 1 OF 2
TITLE VERTICAL TUNNEL (206 L/L1/L3/L4) SCALE NTS

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

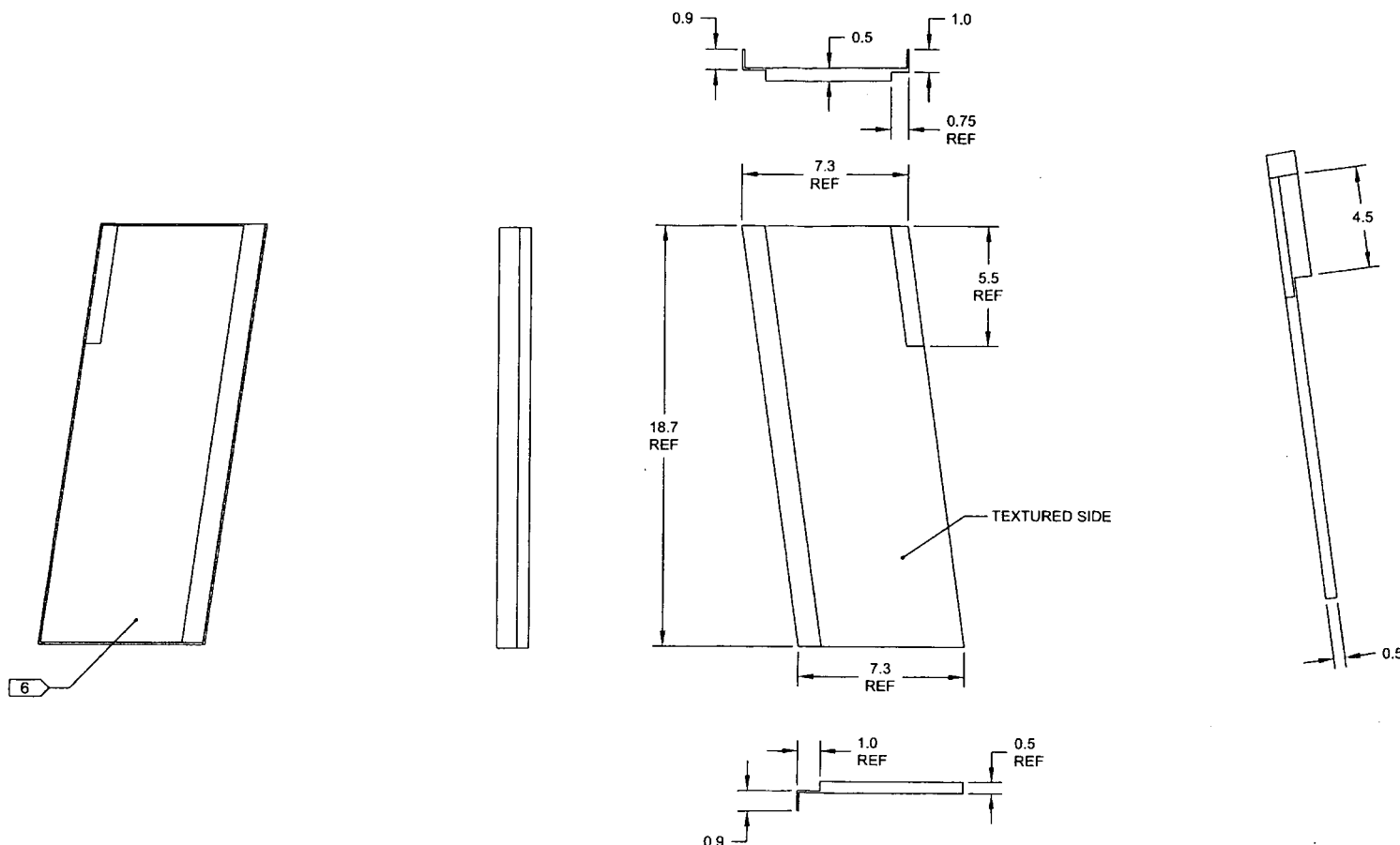
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

78091



D3828-2 VERTICAL TUNNEL, LOWER R/H

RELEASED
09/06/12

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 0.6 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9229 PER DART QSI 022. TRIM PER MOLD.
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED

PART NUMBER	DESCRIPTION
D3828-2KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3828-2KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3828	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		VERTICAL TUNNEL (206 L/L1/L3/L4)	NTS
DATE	09.06.12	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 78091
Description:	Part Number: 03028-FKGY
Inspection Dwg: 03028 Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than $\frac{1}{8}$ "	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: DR	Date: 12/01/09
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TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
18.7	Ref.	18.625"	✓		TAPE DL-01	
7.3	Ref.	7.375"	✓		TAPE DL-01	
4.5	Ref.	4.5"	✓		TAPE DL-01	
1.0"	± 0.100	1.09"	✓		Ultr DL-02	
0.5"	± 0.100	0.589"	✓		Ultr DL-02	
0.056"	MIN.	0.082"	✓		ULTRA	

Measured by: DR	Date: 12/01/11
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Audited by: J	Date: 12/01/15
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Preliminary Approval:	Date:
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Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	

10.04.14